



SEQUENCE LISTING

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MORNHINWEG, ESTHER

<120> POLYMORPHISMS IN THE HUMAN GENE FOR THE MULTIDRUG
RESISTANCE-ASSOCIATED PROTEIN 1 (MRP-1) AND THEIR USE IN
DIAGNOSTIC AND THERAPEUTIC APPLICATIONS

<130> VOS-42 CON

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<160> 406

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<210> 278
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21

<210> 287

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21

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21

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21

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21

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<210> 296
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<210> 299
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<210> 313
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 <210> 319
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<212> DNA
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<220>
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<210> 320
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<220>
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<210> 322
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<220>
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<210> 323
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<220>
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 (exon 10, Arg433Ser)

<220>
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 <222> (3)..(20)

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 Ala Gln Ser Phe Met Asp
 1 5

21

<210> 324
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<220>
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 (exon 10, Arg433Ser)

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 Ala Gln Ser Phe Met Asp
 1 5

<210> 325
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<220>
 <223> Description of Artificial Sequence: sequence of G27258A
 (exon 17, Arg723Gln)

<220>
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 <222> (1)..(21)

<400> 325
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 Asp Ser Leu Gln Glu Asn Ile
 1 5

21

<210> 326
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<220>
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 (exon 17, Arg723Gln)

<400> 326
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 1 5

<210> 327
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<220>
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 (exon 8, Phe329Cys)

<220>
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 <222> (1)..(21)

<400> 327
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 Leu Met Ser Cys Phe Phe Lys
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21

<210> 328
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<220>
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 (exon 8, Phe329Cys)

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<210> 329
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<220>
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<210> 330
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<210> 331
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<400> 331
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<400> 332
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<400> 333
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<210> 334
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<210> 336
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<400> 337
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<210> 339
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<210> 340
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 <400> 343
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 <210> 344
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 <210> 345
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 <210> 346
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 <210> 349
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<210> 352
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<210> 353
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<400> 353
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<210> 354
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<400> 354
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<210> 355
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<400> 355
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<210> 356
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<210> 357
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<220>
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<210> 358
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<400> 358
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<210> 359
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 <210> 361
 <211> 56
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 361
 tccctgcgcc gccgccgcc cgcgccgcc gccgccgcc gccgccagcg ctagcg 56

 <210> 362
 <211> 56
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 362
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 <210> 363
 <211> 59

<212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (47)..(49)
 <223> these nucleotides may not be present

<400> 363
 tccctgcgcc gccgcccgcg ccgcccgcgc cgccgcccgc gccgcccga gcgctagcg 59

<210> 364
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (11)..(13)
 <223> these nucleotides may not be present

<400> 364
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<210> 365
 <211> 53
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 365
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<210> 366
 <211> 53
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 366
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<210> 367
 <211> 59
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> (44)..(49)
 <223> these nucleotides may not be present

 <400> 367
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 <210> 368
 <211> 59
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> (11)..(16)
 <223> these nucleotides may not be present

 <400> 368
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 <210> 369
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 369
 tccctgcgcc gccgccgccg ccgccgccgc cgccgccgcc agcgctagcg 50

 <210> 370
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 370
 cgctagcgct ggcgggcgcg gcggcggcgg cggcggcggc ggcgagggga 50

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<210> 371
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (41)..(49)
<223> these nucleotides may not be present

<400> 371
tccctgcgcc gccgcccgcg ccgcccgcg cgccgcccgc gccgcccga gcgctagcg      59

<210> 372
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (11)..(19)
<223> these nucleotides may not be present

<400> 372
cgctagcgct ggcggcggcg gcggcggcg cggcggcggc ggcggcggcg gcgcagggga      59

<210> 373
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 373
tccctgcgcc gccgcccgcg ccgcccgcg cgccgccagc gctagcg      47

<210> 374
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 374
cgctagcgct ggcggcggcg gcggcggcg cggcggcggc gcagggga      47

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<210> 375
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (38)..(49)
<223> these nucleotides may not be present

<400> 375
tccctgcgcc gccgcccgcg ccgcccgcgc cgccgcccgc gccgcccga gcgctagcg      59

<210> 376
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> misc_feature
<222> (11)..(22)
<223> these nucleotides may not be present

<400> 376
cgctagcgct ggcggcggcg gcggcgggcg cggcggcggc ggcggcggcg gcgcagggga      59

<210> 377
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 377
tccctgcgcc gccgcccgcg ccgcccag cgctagcg      38

<210> 378
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

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<400> 378
 cgctagcgct ggcggcggcg gcggcggcgg gcgagggga 38

<210> 379
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (29)..(49)
 <223> these nucleotides may not be present

<400> 379
 tccctgcgcc gccgccggcg ccgccggcg gcgccggcg gccgccgcca gcgctagcg 59

<210> 380
 <211> 59
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
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<400> 380
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<210> 381
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 381
 tcaagcagag agagagtgtt 20

<210> 382
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 382
 aacactctct ctctgcttga 20

 <210> 383
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> (11)..(12)
 <223> these nucleotides may not be present

 <400> 383
 tcaagcagag aaagagagtg tt 22

 <210> 384
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <220>
 <221> misc_feature
 <222> (11)..(12)
 <223> these nucleotides may not be present

 <400> 384
 aacactctct ttctctgctt ga 22

 <210> 385
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 385
 ctggggcctt tgtgtcattc a 21

 <210> 386
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 386
 tgaatgacac aaaggcccca g 21

<210> 387
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 387
 ctggggcctt ygtgtcattc a 21

<210> 388
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 388
 tgaatgacac raaggcccca g 21

<210> 389
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

/ <400> 389
 acacaaggag atgaagccgt t 21

<210> 390
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 390
 aacggcttca tctccttggtg t 21

<210> 391
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 391
 acacaaggag rtgaagccgt t 21

 <210> 392
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 392
 aacggcttca yctccttg t 21

 <210> 393
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 393
 caggcccccc cagacctcag g 21

 <210> 394
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 394
 cctgaggtct gggggggcct g 21

 <210> 395
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (11)..(11)
 <223> this nucleotide may not be present

<400> 395
 caggccccc cagacctcag g 21

<210> 396
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
 <221> misc_feature
 <222> (11)..(11)
 <223> this nucleotide may not be present

<400> 396
 cctgaggtct gggggggcct g 21

<210> 397
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 397
 tacagttttg attttgttga g 21

<210> 398
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 398
 ctcaacaaaa tcaaaactgt a 21

<210> 399
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 399
tacagttttg rttttgttga g 21

<210> 400
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 400
ctcaacaaaa ycaaaactgt a 21

<210> 401
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative peptide

<400> 401
Thr Pro Leu Asn Lys Ile Lys Thr Ala Leu Gly
1 5 10

<210> 402
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative peptide

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Thr or Ile

<400> 402
Thr Pro Leu Asn Lys Xaa Lys Thr Ala Leu Gly
1 5 10

<210> 403
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Illustrative peptide

<400> 403
 Cys Asn His Val Ser Thr Leu Ala Ser Asn Tyr
 1 5 10

<210> 404
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Illustrative peptide

<220>
 <221> MISC_FEATURE
 <222> (6) .. (6)
 <223> Ala or Thr

<400> 404
 Cys Asn His Val Ser Xaa Leu Ala Ser Asn Tyr
 1 5 10

<210> 405
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 405
 cccgccgccc gggtg 15

<210> 406
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Illustrative transport family signature motif

<220>
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 <222> (7) .. (9)
 <223> Xaa can be any amino acid

<220>
 <221> MISC_FEATURE

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<222> (11)..(11)
<223> Xaa can be any hydrophobic amino acid

<220>
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<222> (12)..(12)
<223> Xaa can be any amino acid

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa can be any hydrophobic amino acid

<400> 406
Leu Ser Ser Gly Gly Gln Xaa Xaa Xaa Arg Xaa Xaa Xaa Ala
1          5          10

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